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**Do the Differences between Resilience Account for the Association
between Parenting Styles and Depressive Symptoms in Chinese
Undergraduate Students?: An Examination of a Mediation Model**

By

Ze Zhou Wu

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Faculty Advisor: Resney Gugwor

Preceptor: Resney Gugwor

AUTHOR'S NOTE

Correspondence concerning this article should be sent to Zezhou Wu, Department of Psychology, University of Chicago, 5848S University Ave, Chicago, IL 60637. Electronic mail may be sent to zezhouwu@uchicago.edu.

Abstract

In their first separation from home and preparing for professional careers, undergraduate students face the challenging psychological and psychosocial transition from carefree puberty to independent adulthood. The pressure of simultaneously achieving social development and educational attainment might unconsciously generate poor mental health and even depressive symptoms. Apart from genetic factors, parenting styles also have been widely identified as a risk factor for depressive symptoms in emerging adults. Although greater parental authoritarianism has previously been associated with higher levels of depressive symptoms, not everyone with high-demand and low responsive parenting styles would be diagnosed with major depression. Instead, resilience might mediate the correlation between parenting styles and depression. This research examined whether resilience could serve as a mediator between parenting styles and depressive symptoms in Chinese undergraduate students and adopted three self-rating questionnaires - Parents as Social Context Questionnaire(PASCQ), Beck Depression Inventory(BDI), Connor-Davidson Resilience(CD-RISC). PASCQ is a parenting style questionnaire scores on three bipolar dimensions: warmth vs. rejection, structure vs. chaos, autonomy support vs. coercion. As a result, there is no significant negative correlation between structure, warmth, and depression, while chaotic parenting could not be significantly negatively associated with resilience. Besides, only rejection, autonomy support, and coercion could mediate by resilience, which emphasizes the importance of practicing independence and autonomy.

Keywords: College Students; parenting styles; resilience; depressive symptoms

Do the Differences between Resilience Account for the Association between Parenting Styles and Depressive Symptoms in Chinese Undergraduate Students?: An Examination of a Mediation Model

I. Introduction

With the rapid developments of modernization, informatization, and individuation, the importance of mental health has received increasing attention in this day and age, especially when it comes to preventing and intervening in depressive symptoms (Mendelson et al., 2012). Depression is one of the most prevalent mental illnesses worldwide, with an estimated 3.8% of the population affected, approximately 280 million people (World Health Organization, 2021). Major depressive disorder is a common, often chronic, and recurrent condition marked by persistent suffering, poor overall health, and deleterious effects on psychological, academic, vocational, and family functioning (de Zwart, Jeronimus, & Jonge, 2019).

In their first separation from home and preparing for professional careers, undergraduate students face the challenging psychological and psychosocial transition from carefree puberty to independent adulthood (Chow & Healey, 2008). As for these emerging adults in college, the pressure of simultaneously achieving social development and educational attainment might unconsciously generate poor mental health and even depressive symptoms. According to 95% of college counseling center directors, depression (39.3%) is the second-highest concern among colleges, while anxiety disorder would be the most diagnosed disorder (Reetz & Mistler, 2014). The number of college students who reported seeking treatment for depression also has increased over the last several years (American College Health, 2019). Therefore, emerging adults (aged

18-25 years), the dominant age range of undergraduates, have the highest incidence and cumulative prevalence of depressive disorders of any age (Blazer et al., 1994; Klerman & Weissman, 1989).

Besides, depression could impair the academic success and graduation rates of college students by decreasing the concentration and interest in studies (Dixon & Kurpius, 2008) and affect the chances of future employment by hampering the social, occupational, and interpersonal functioning of the students (Stewart-Brown et al., 2000; Onya, Stanley, 2013). It also might account for other problems such as substance abuse, binge drinking, smoking, marijuana, and even participating in risky sexual behaviors to cope with emotional pain (Mochrie et al., 2020). Therefore, researching the reasons for the high prevalence of depression in undergraduate students and how to intervene and protect them from depression would have significant public mental health implications.

Parents are the first experience as children enter into the world, and they not only feed children's soul, intellect, humanity, and capacity and persist genetics to the next generation, even when it comes to the gene related to mental disorder. Admittedly, depression is a very complicated mental illness with many contributing factors, including stressful events, illness, loneliness, personalities, and especially family history (de Zwart, Jeronimus, & Jonge, 2019; Mendelson et al., 2012). Goodman and Rouse (2010) pointed out that parents with psychological illness would be a reliable indicator of depressive symptoms. The effect of parental depression was strong among children, especially when it comes to girls (Fendrich, Warner, & Weissman, 1990; Rebecca et al., 2020). However, apart from genetic factors (Tanguay-Garneau, Boivin, & Feng, 2020; Kendler et al., 2019), parenting styles also have been widely identified as a risk

factor for depressive symptoms in emerging adults (Rebecca et al., 2020; Piko & Balazs, 2010). Parenting style is a psychological construct representing the manners that how parents adopt to raise their children. Although there are different approaches to assessing parenting styles (Darling and Steinberg, 1993; Olivari et al., 2013; Robinson et al., 1995), the most commonly accepted classification of parenting styles was proposed by Diana Baumrind (1971). She found that responsiveness vs. nonresponsiveness and demanding vs. undemanding would be four essential elements shaping parenting styles. Responsiveness would define as the extent to which parents are warm and sensitive to their children's needs, while demandingness would refer to the degree of control parents want to influence their children's behaviors. Then Baumrind classifies three initial parenting styles: authoritative parenting (high responsiveness and demandingness), authoritarian parenting (high demandingness but low responsiveness), permissive parenting (high responsiveness and low demandingness) (shown in Appendix I), and later Maccoby and Martin (1983) expanded Baumrind's three parenting styles by adding neglectful parenting (low responsiveness and demandingness).

According to previous research, although greater parental authoritarianism has previously been associated with higher levels of depressive symptoms, especially when it comes to authoritarian mothers to daughters (Rebecca, Tamar, & Pamela, 2018), while the authoritative style of parenting is considered the style best suited for promoting mental health and associated with few depressive symptoms (Barton & Kirtley, 2012; Chen et al., 2019; McKinney et al., 2011). However, It is not uncommon for children to experience strict parenting in a large population. Still, not everyone with high demand and low responsive parenting styles would be diagnosed with major depression. This would imply that either authoritative or authoritarian

styles would not directly contribute to diagnosing depressive symptoms. Instead, other variables might mediate the correlation between parenting styles and depression. Hence, one such potential mediating variable could be resilience, which is the ability to withstand adversity and bounce back from complex life events (Hetherington & Elmore, 2003).

Additionally, resilience has always been mistakenly assumed to be an innate trait of individuals, but most recent research shows that resilience is a buildable resource (Nuttman-Shwartz & Green, 2021) and is best understood as a process that promotes wellbeings when facing an adverse condition (Zautra, John, & Kate, 2010). According to American Association (2014), a person's resilience could be developed and sustained by several factors, including the ability to make realistic plans and follow necessary steps, confidence in one's strengths and abilities, communication and problem-solving skills, the ability to manage strong impulse and feelings, and social supports (Lin, Woelfel, & Mary, 1985). Thus these factors are highly associated with parenting styles (Gavidia-Payne et al., 2015). Children would be more resilient if their family emphasized the value of assigned chores, caring for brothers or sisters, and the contribution of part-time work in supporting the family (Werner, 1982), and a stronger relationship with at least one adult would also foster resilience (Wang, Haertel, & Wallberg, 1997). For example, families with low socioeconomic status could also promote children's resilience by displaying warmth, emotional support, and providing straightforward discipline and values about leisure and money (Cauce, 2003), which would also make them have positive adaptation stress as they enter the social world. Besides, the previous studies have proved that resilience could also significantly mediate depression severity (Haffel & Vargas, 2011; Wingo et al., 2010). According to the hopelessness theory of depression (Abramson, Metalsky, & Alloy,

1989), individuals with a negative cognitive style would have higher possibilities of depression when interacting with stressful life events. Conversely, resilient individuals would have positive critical coping skills when confronting a crisis. Then, they could enhance more elevated levels of upbeat cognitive style and life events to replace negative cognitive styles (Haffel & Vargas, 2011; Smith, 2009). Therefore resilience might be considered one mediating variable to account for the association between parental styles and depressive symptoms (shown in Chart I). However, the most previous research articles have focused on either using parental depression, stress, and SES as mediators to depression or under a Western culture context (Barton & Kirtley, 2012; Fendrich, Warner, & Weissman, 1990; Rebecca et al., 2020; Zwart, Jeronimus, & Jonge, 2019). Regarding resilience as a mediator between parenting styles and depressive symptoms in Chinese undergraduate students is still unrevealed.

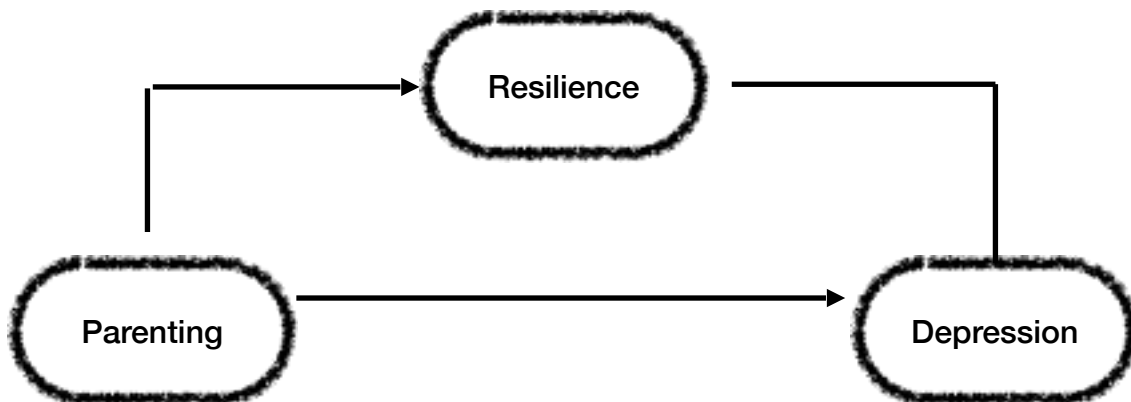


Chart 1

There are enormous cultural and political differences between China and Western culture, especially in education. Although the Chinese examination-oriented education system is fairest and impartial in a significant population context, college entrance examination score has become

the university's only standard for evaluating undergraduate admissions. Thus, Chinese parents have to focus more on their kids' grades and adapt more strict parenting to supervise their studies and homework. Nevertheless, not emphasizing or even ignoring the importance of psychological qualities, including resilience, might contribute to the increasing prevalence of mental disorders in Chinese college students. Hence, identifying variables that mediate and moderate the correlation between parenting styles and depression among Chinese undergraduate students would enrich our knowledge of how parenting styles impact depressive symptoms in this population and expand the existing literature. Then it might facilitate the prevention and intervention of increasing depressive symptoms among Chinese undergraduate students by negotiating parenting styles and enhancing children's resilience. Given the consideration above, the parenting style with higher scores on warmth, structure, and autonomy support is hypothesized to correlate to depressive symptoms negatively. In comparison, parenting style with higher scores on rejection, chaos, and coercion is positively associated with depressive symptoms, and resilience is also hypothesized to mediate the relationship between parenting styles and depressive symptoms.

II. Method

2.1 Participants and procedures

A quantitative questionnaire was designed and administered using WenJuan Website among a sample of college students residing in southeastern China, Xiamen. The sample was recruited from a large public university, who were invited through university and classes' QQ group chat to complete the online survey. The participants would receive social practice proof

from the psychological counseling center according to their requirements, which could meet the university's requirements. Participants would be asked to complete three separate questionnaires - Parents as Social Contest Questionnaire (PASCQ), Beck Depression Inventory (BDI), and Connor-Davidson Resilience (CD-RISC) - independently to ensure confidentiality. Completion of all three study questionnaires required approximately 15 min.

Exclusion criteria for the present study were as follows: (a) the presence of a major cognitive disorder or mental illness; (b) refusal to provide written informed consent; and (c) currently not undergraduate students; (d) not complete the questionnaire. The inclusion criteria for the present study were as follows: (a) voluntary participation; (b) age ≥ 18 years; (c) capacity to understand and complete the study questionnaires. In the process of data collection, 171 surveys were eliminated because some participants response was not complete or true, so 2442 complete surveys were obtained with an efficient rate of 93.5%.

2.2 Measures

Parenting Style: Parenting styles were assessed through the Parents as Social Contest Questionnaire (PASCQ) proposed by Skinner (2005). This questionnaire is a 24-item self-rating scale, which scores on three bipolar dimensions: Warmth (e.g., "My parents let me know they love me") and Rejection (e.g., "Sometimes I wonder if my parents like me"), Structure (e.g., "When I want to understand how something works, my parent explain it to me") and Chaos (e.g., "My parents keep changing the rules on me"), Autonomy Support (e.g., "My parent let me do the things I think are important") and Coercion (e.g., "My parents think there is only one right way

to do things in their way”) (Skinner et al., 2005). There are four questions in each parenting style, and each response has four questions ranging from (0), not at all true, to (3) very true.

Depression: Depression could measure by using the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The BDI is a 21-question multiple-choice self-report inventory for measuring the severity of depression, which views depression from a psychodynamic perspective. The participants will be asked questions about how did they feel in the past week. Each question has at least four possible responses that range in intensity: 0) I do not feel sad; 1) I feel sad; 2) I am sad all the time, and I can not snap out of it 3) I am sad all the time, and I can not snap out of it. Each answer has a value ranging from 0 to 3. The total score will decide the severity of depression. Overall, the higher total ratings indicate more severe depressive symptoms. For example, 0-9 indicates minimal depression; 10-18 indicates mild depression; 19-29 indicates moderate depression; 30-63 indicates severe depression.

Resilience: the Connor-Davidson Resilience (CD-RISC) was developed by Connor and Davidson (2003). The CD-RDSC is a 25-item scale that measures resilience, which is the ability of the individual to cope with adversity or perceived stress. Each item scores using a 5-point Likert scale ranging from 0-4: not true at all (0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4), The total rating results in a number between-100. A high score indicates good resilience.

Other information: demographic information including age, sex (1 = boy, 2 = girl), country, parental depression, parent’s martial relationship, living arrangement was also collected.

Living arrangement was assessed by asking who live in the student's primary home (responses were coded as living with both parents = 1, living with a single parent =2, living with others = 3).

2.3 Ethics

The research was approved by the Ethical AURA IRB (Institutional Review Board) at the University of Chicago (IRB22-0387). All participants included in the study provided online informed consent.

2.4 Statistical Analysis

The statistical analyses were performed using SPSS software and PROCESS for SPSS. To describe bivariate correlations between parenting styles, depressive symptoms, and resilience, Pearson's correlation analyses were performed in SPSS, while the path analysis was performed in the PROCESS for SPSS to test the mediating effect of resilience on the relationship between parenting styles and depression. The significance of the mediating effects was tested using 95% confidence intervals generated by 5,000 bootstrap samples.

The assessment of parenting styles is complex, so the Parents as Social Context Questionnaire (PASCQ) is divided into six parental dimensions - Warmth, Rejection, Structure, Chaos, Autonomy support, and Coercion. The three positive dimensions of Warmth, Structure, and Autonomy support are considered to be the respective bipolar opposites to the three negative dimensions of Rejection, Chaos, and Coercion (Baumrind, 1991; Chew & Wang, 2013; Skinner, Johnson & Snyder, 2005). Thus, the statistical analysis would analyze the six sub-parental dimensions instead of parenting style as a total score.

III. Results

The participants (n = 2442) consisted of 889 men (36.4%) and 1553 women (63.6%). The school year was Freshmen, n = 1368 (56.0%); Sophomore, n = 696 (28.5%); Junior, n = 320 (13.1%); and Senior, n = 58 (2.4%). Of the overall sample, 32.8% of the respondents are the only child in their family, and 80.7% of respondents living with both parents followed by 78% of the respondents' parent's marital relationships are very good (shown in Appendix III).

The primary method of this experiment is adapting questionnaires to collect relevant information about college students most validly and reliably, and the accuracy and consistency of survey forms would significantly influence the research results. Therefore, before analyzing whether resilience could serve as the mediating effect between parenting styles and depression, it is crucial to conduct the questionnaire reliability and validity test first (shown in Appendix IV). As for the reliability analysis, all sub-dimensions of Cronbach's Alpha are above 0.7, which would regard as acceptable (Cortina, 1993). Besides, all three questionnaires would have comparatively high validity because their KMO is above 0.9, and Bartlett's Test of Sphericity's significant tests are less than 0.5, which would be considered marvelous.

Parents as Social Contest Questionnaire (PASCQ) have three bipolar dimensions: Warmth and Rejection, Structure and Chaos, Autonomy Support, and Coercion. Thus, there would be two different models to test the hypothesis of whether the parenting style with higher scores on warmth, structure, and autonomy support would correlate to depressive symptoms negatively and resilience positively, while parenting style with higher scores on rejection, chaos, and coercion is positively associated with depressive symptoms and resilience positively.

Pearson correlation coefficients would consider as the Model 1 for inter-correlations among parenting styles, resilience, and depressive symptoms. Among 2442 Chinese College students, depression shows a significantly positive correlation with rejection, chaos, and coercion and significantly negatively correlate with resilience and autonomy support. However, there are no significant correlations between depression and involvement or structure. As for the relationship between resilience and parenting styles, resilience would have a significantly positively correlation with involvement, structure, and autonomy and significantly negatively correlated with rejection and coercion but without chaos.

	Resilienc e	Depressio n	Involvem ent	Rejecti on	Structu re	Chaos	Autonomy_ Support	Coerci on
Resilience	-	-.220**	.519**	-.076**	.563**	.037	.671**	.051*
Depression	-.220**	-	.026	.489**	-.025	.434**	-.087**	.363**
Involvement	.519**	.026	-	-.048*	.719**	.098**	.678**	-.007
Rejection	-.076**	.489**	-.048*	-	-.041*	.635**	-.166**	.587**
Structure	.563**	-.025	.719**	-.041*	-	.100**	.713**	-.007
Chaos	.037	.434**	.098**	.635**	.100**	-	.010	.668**
Autonomy_Supp ort	.671**	-.087**	.678**	-.166**	.713**	.010	-	-.063**
Coercion	.051*	.363**	-.007	.587**	-.007	.668**	-.063**	-

** . Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

Table 1: Correlations between the study variables

Additionally, the mediating effects of resilience on parenting styles and depressive symptoms among college students would test using the Bootstrap estimation method in the PROCESS for SPSS. Parenting style was entered as the independent variable, depressive

symptoms were entered as the dependent variable, and resilience was entered as the proposed mediator. A Bootstrap sample of 5,000 would be specified. The result of the analysis of the mediating effect is presented in the following Tables.

1. Resilience as a mediating effect between involvement and depression

Model pathways	Effect	95% CI	
		Lower	Upper
Total effect: Involvement → Depression	0.2408	-0.1263	0.6078
Direct effect: Involvement → Depression	1.7738	1.3608	2.1869
Indirect effect: Involvement → Resilience → Depression	-1.5330	-1.8271	-1.2673

Table 2

The Bootstrap 95% confidence intervals were inspected to determine the significance of the mediating effect of resilience between involvement and depression. The results in Table 2 suggests no direct relationship between involvement and depression because 95% confidence intervals include 0. Thus, the correlation between involvement and depression would not be partially mediated by resilience, which rejected the hypothesis that the correlation between involvement and depression is partially mediated by resilience.

2. Resilience as a mediating effect between rejection and depression

Model pathways	Effect	95% CI	
		Lower	Upper
Total effect: Rejection → Depression	7.0388	6.5407	7.5369

Direct effect: Rejection → Depression	6.8380	6.3495	7.3264
Indirect effect: Rejection → Resilience → Depression	0.2009	0.0875	0.3405

Table 3

The Bootstrap 95% confidence intervals were aimed to determine the significance of the mediating effect of resilience between rejection and depression. Table 3 suggest a direct relationship between rejection and depression because 95% confidence intervals would not include 0. The total involvement in depression effect in the cohort was 7.0388. The effect would decrease to 6.8380 (i.e., direct effect = 6.8380) when the mediator was included in the model. Besides, the results in Table 3 suggest that the indirect effect of resilience on the correlation between rejection and depression was significant, which supports the hypothesis that the correlation between rejection and depression is partially mediated by resilience.

3. Resilience as a mediating effect between structure and depression

Model pathways	Effect	95% CI	
		Lower	Upper
Total effect: Structure → Depression	-0.2554	-0.6633	0.1524
Direct effect: Structure → Depression	1.4907	1.0127	1.9687
Indirect effect: Structure → Resilience → Depression	-1.7461	-2.0555	-1.4564

Table 4

The Bootstrap 95% confidence intervals were inspected to determine the significance of the mediating effect of resilience between structure and depression. The results in Table 4 suggest no direct relationship between structure and depression because 95% confidence intervals include 0. Thus, the correlation between structure and depression would not be partially mediated by resilience, which rejected the hypothesis that the correlation between structure and depression is partially mediated by resilience.

4. Resilience as a mediating effect between chaos and depression

Model pathways	Effect	95% CI	
		Lower	Upper
Total effect: Chaos → Depression	5.6977	5.2285	6.1670
Direct effect: Chaos → Depression	5.8134	5.3601	6.2666
Indirect effect: Chaos → Resilience → Depression	-0.1156	-0.2536	0.0325

Table 5

The Bootstrap 95% confidence intervals were inspected to determine the significance of the mediating effect of resilience between chaos and depression. The results in Table 5 suggest that although chaos would be positively correlated with depression, there is no indirect effect of resilience on the correlation between chaos and depression because 95% confidence intervals would not include 0, which rejects the hypothesis that the correlation between rejection and depression is partially mediated by resilience.

5. Resilience as a mediating effect between autonomy support and depression

Model pathways	Effect	95% CI	
		Lower	Upper
Total effect: Autonomy support → Depression	-0.8371	-1.2164	-0.4578
Direct effect: Autonomy support → Depression	1.0546	0.5552	1.5539
Indirect effect: Autonomy → Resilience → Depression	-1.8917	-2.2802	-1.5175

Table 6

The Bootstrap 95% confidence intervals were aimed to determine the significance of the mediating effect of resilience between autonomy support and depression. The results in Table 6 suggest that there is a direct relationship between autonomy support and depression because 95% confidence intervals would not include 0. The total autonomy support in depression effect in the cohort was -0.8371. This increased to 1.0546 (i.e., direct effect = 1.0546) when the mediator was included in the model. Besides, the indirect effect of resilience on the correlation between autonomy support and depression was significant, which supports the hypothesis that the correlation between autonomy support and depression is partially mediated by resilience.

6. Resilience as a mediating effect between coercion and depression

Model pathways	Effect	95% CI	
		Lower	Upper
Total effect: Coercion → Depression	4.5590	4.0944	5.0236
Direct effect: Coercion → Depression	4.7127	4.2630	5.1624
Indirect effect: Coercion → Resilience → Depression	-0.1537	-0.2758	-0.0218

Table 7

The Bootstrap 95% confidence intervals were aimed to determine the significance of the mediating effect of resilience between coercion and depression. The results in Table 7 suggest that there is a direct relationship between coercion and depression because 95% confidence intervals would not include 0. The total coercion in depression effect in the cohort was 4.5590. This increased to 4.7127 (i.e., direct effect = 4.7127) when the mediator was included in the model. Besides, the indirect effect of resilience on the correlation between coercion and depression was significant, which supports the hypothesis that the correlation between coercion and depression is partially mediated by resilience.

IV. Discussion

The present study aimed to elucidate the correlation between parenting style and depressive symptoms among Chinese college students by considering the potential influence of resilience. Support was generated by the present correlation analyses and Bootstrap estimation. Similar to previous research, the result of the present study indicated that resilience could be a significant mediator between parenting styles with rejection, coercion, and autonomy (Gavidia-Payne et al., 2015; Rebecca et al., 2020; Wingo et al., 2010). However, resilience could not serve as an appropriate mediator between parenting styles with involvement, structure, and chaos, which would reject the hypothesis. To better analyze and comprehend these results that contradict the hypothesis, it is crucial to combine with current Chinese education background

and separate opposite parenting styles from three bipolar dimensions in the Parents as Social Contest Questionnaire.

Structure & Chaos

It is not unusual to know that rules trigger thoughts of discipline and punishment, and the family rule is a specific, clear statement about behaviors that parents expect from children. Establishing consistent and predictable family rules would be critical to developing a sense of structure and routine in early life and preparing for social life, such as interacting with siblings, and classmates in the future. Under a structural family atmosphere, the ability to make realistic plans and follow necessary steps and social support would be enhanced because they understand what and when to expect, while parents could be more confident to respond to children's requests and needs.

However, although organized parenting might be beneficial to build a disciplined and harmonious life during college, there is no significant negative correlation between structure and depression among college students based on the research result. Generally speaking, affluent families' parenting would be structural to discipline their children. Nevertheless, affluent young reported significantly higher levels of anxiety across domains, and levels of depression were marginally higher (Luthar & Latendresse, 2002). There would be a pervasive emphasis on ensuring the success of children across virtually all domains of competence, pressures that drive youth to try to excel at academics as well as multiple extracurricular activities in upwardly mobile communities (Luthar & D'Avanzo, 1999). Under these achievement pressures, children

would perceive that parents emphasized their accomplishment instead of personal development. As time passes, they would either be regarding achievement as an internalized drive to live or perplexed when the rules are contradictory to their genuine ideal of themselves. As a results, pressures to excellent achievement at college would have a higher possibility to link with various forms of maladjustment to these affluent children, even though living with structural parenting.

Oppositely, unclear and unstable family rules would unconsciously inhibit normal childhood behaviors and even character formation. For example, when the primary caregiver is inconsistent and unpredictable providing a sense of safety, the children develop strategies for self-protection by subconsciously denying and hiding true feelings and needs, which would affect their self-confidence and self-worth. Hence, household chaos would represent a unique risk factor for various adverse childhood outcomes, including reduced cognitive ability, IQ, and a higher rate of physical and mental diseases in children even after controlling for SES (Deater-Deckard et al., 2009; Dumar et al., 2005; Marsh, Dobson, & Maddison, 2020). In general, there are two bipolar unusual but pervasive forms of disordered family education - either overindulge children by giving them everything they want or managing them in a non-negotiable way. Although both ways would not be beneficial to cultivate the values and characteristics when growing up, some Chinese parents would prefer to be excessively strict with them instead of spoiling them.

The “tiger mom” and “wolf dad” might be the prevailing stereotype of Chinese parents in the United States who forces their children to parentally-defined success in a highly strict way. “Humble Education” and “Frustration Education” are two of the most common ideas in Chinese traditional education to build and even control children’s characteristics. For thousands of years,

descendants of the Chinese nation follow the “Doctrine of the Mean,” initially aiming to maintain balance and harmony by directing the mind to a state of constant equilibrium (Ledge, 1951). However, the understanding and education of the Doctrine of the Mean transform from cultivating the virtue of modesty to overemphasizing children’s drawbacks and avoiding pushing themselves forward nowadays. Besides, these Chinese parents believe that children could maintain the doctrine of the mean and build resilience capacity by overcoming obstacles, learning from struggles, and benefitting from mistakes, which would lay a solid foundation for success in later life. Then, they might deliberately harden children through enduring hardships, giving them cold shoulders, and punishment with no reason. For example, they would notice or even blame their child’s carelessness in detail. Nevertheless, these parents have misunderstood the concept of frustration education and misuse the training methods to create chaotic parenting. Their children might sense confusion and self-abasement because their parents always told them “not good enough” and “not showing off” when they accomplish every single win. As time passes, they are more likely to have an extremely isolated, repressed, violated, depressed state though they might be better at bearing outside criticism. These children would be conditioned to receive negative information and are limited to others’ opinions and feelings, even in adulthood. They might overestimate and overemphasize the deficiency in the face of difficulty, and fear exhibiting their strength when the opportunity comes. As a result, they would have higher chances of depression because of lower outcomes and performance expectancy in college.

Despite the significantly severe mental damage from chaotic parenting, there is no significant negative correlation between chaos and resilience. Although the overall rearing conditions would be powerful determinants of outcome, there are a sizable parents could not

provide consistently favorable and structural growth environment to their children. These “high-risk” children could still develop healthy personalities, stable careers, and strong interpersonal relations even though they expose to reproductive stress, discordant and impoverished home lives, and uneducated, alcoholic, or mentally disturbed parents. Werner (1989) proposed that several protective factors enable these high-risk but resilient children to resist stress and chaotic parenting. Firstly, resilient children tend to have inborn characteristics that elicit positive responses from family members and strangers, including a high degree of sociability and activity level, and a low degree of excitability and distress. For example, they have a higher tendency to seek out novel experiences and ask for help when they needed it at 20 months, and they could be more concentrated on assignments, and problem-solving when they enter elementary school. These same qualities could be preserved into adulthood. Secondly, environmental factors could also contribute to children’s ability to withstand stress under a chaotic parenting atmosphere. For example, girls could develop pronounced resilience and a sense of responsibility when they have maternal employment and the need to take care of younger siblings (Cauce, 2003), particularly in households where the father had died or was permanently absent because of desertion or divorce. Resilient boys, on the other hand, were often the firstborn sons who did not have to share their parents' attention with many additional children. They also had some male role models in the family, such as grandfather and uncle (Wang, Haertel, & Wallberg, 1997). Thirdly, resilient children have an aptitude to seek emotional support outside their immediate family. They would usually made school a refuge from a disordered household, friends and classmates could also provide counsel and support when their own family was beset by discord or threatened with dissolution.

Involvement & Rejection

Parental rejection is the absence or the significant withdrawal of warmth, affection, or love from parents toward their children (Rohner, 2016). Rejection in childhood may be attributed to fear of intimacy, distrust, and people-pleasing behaviors when stepping into adulthood. Besides, perceived parental rejection is strongly associated with depression and anxiety (Campos, Besser, & Blatt, 2013; Hale et al., 2005). According to Rohner's parental acceptance-rejection theory, when perceiving less verbal and physical warmth and affection, and more hostility, indifference, undifferentiated rejection, aggression, and neglect during childhood, people would develop defensive independence, in which a person either does not seek out or actively avoids emotional support and attachment to significant others despite still craving acceptance. The personality of these children characterizes by dependency, low self-esteem and self-adjustment, emotional instability, and a negative worldview (Gracia, Lila, & Musitu, 2005). Nevertheless, these personalities would be not beneficial to develop and sustaining resilience, so these rejected children would have less social support, confidence in their strengths and abilities, and communication skills when they coped with transitions and depressed moods during college (American Association, 2014; Lin, Woelfel, & Mary, 1985).

However, although parental rejection could affect an individual's personality development and mental disorder throughout their whole life, parental warmth and involvement would not have a significant correlation with depression among college students. An individual's life is constantly adapting to different stages by shifting the balance between stressful events that heighten vulnerability and protective factors that enhance resilience from birth to old (Bonanno,

2004; Werner, 1982). As long as the balance between stressful life events and protective factors is favorable, then adaptations are successful. During college, people face many life transitions in living arrangements, relationships, education, and employment, which might potentially generate stress and psychological distress (Arnett, 2007; Chow & Healey, 2008). As for the protective factor, independence would weigh more than parental care and concern for these emerging adults. They have to break away from the protection of their family and learn how to rely on themselves. For example, unlike high school, college students would be required to properly manage time and prioritize things by the importance before the deadline.

Autonomy Support & Coercion

According to the statistical analysis, autonomy support and coercion would be the only bipolar dimension that could mediate resilience to correlate with depression. This result stresses the significance of providing children with opportunities to practice independence and experience autonomy. Rohner (2016) proposed that children with immature dependence receive a great deal of acceptance, but also intrusive parental control, which would be called “smother parenting.” Children might struggle to develop age-appropriate social, emotional, and behavioral skills if their parents oversee children in every aspect of life. These authoritarian parenting styles would be more prominent in Chinese culture and education (Bean, Brian, & Russel, 2006; Patton et al., 2001).

Generally speaking, authoritarian parenting is an extremely strict parenting style with high expectations of children with little responsiveness. Parents tend to control kids through

discipline, shaming, withdrawal of love, or other punishments rather than nurturing children. Thus, compared with authoritative parenting, authoritarian parenting links with lower academic achievements and emotional problems in a western cultural context (Kim et al., 2013; Li and Hein, 2019). However, other research also found that authoritarian parenting with higher school achievement in Hong Kong Chinese (Leung et al., 1998) and Chinese immigrants to North America (Chao 2001). Unlike western authoritarian families, strict Chinese parents also enjoy a sense of closeness with their kids, and their kids may interpret parental coercive tactics as evidence that they are loved. These cultural differences might be impacted by Chinese Confucian background.

Perceiving Confucianism as mainstream ideology, Chinese culture has become an interdependent society based on a social hierarchy system. Each individual's role is determined by his or her position in society, as well as by familial and personal relationships, including ruler-minister, father-son, husband-wife, elder-younger, and friend-friend. People are expected to show humility and deference to their superiors and, thus, they would raise their positions in the view of others rather than lower it (Tan, 2017). Besides, scholar-bureaucrat would be the top social stratification to maintain social order in China, so learning always being highly respected and characterized as the "true religion of the people." This concept also preserves to the present day and represents the importance of college entrance examination achievement.

Taking into consideration of country's large population, the annual National College Entrance Examination would be the exclusive and comparatively equitable way for universities to evaluate applicants from a variety of educational backgrounds. Combined with the traditional

conception of deterrence to the superior and current education system, coercing children to achieve excellent grades and rankings would be the priority of school and family education before college. To achieve this goal, Chinese parents emphasize effort is the key to achievement instead of intelligence, so children would be asked to attend all kinds of tutoring sessions for main courses after class, and not comply with the wishes of children. For the sake of making parents proud, the children have obsessed with rankings and achievements instead of gaining knowledge and their interests.

Although Chinese students would be apt at learning ability and examination, this authoritarian parenting has overemphasized the importance of school rankings and overlooked the stages of character formation. These coercive parents have believed that a distinguished college would not only provide a competitive learning environment and platform to apply for jobs but also cultivate positive emotions and characteristics. Therefore, the parent's number one priority would be to assist their children to achieve higher rankings in the college entrance examination, and communication, real-life solving skills resilience would be going well after stepping into universities. However, research on children's character development suggests that children's character social and emotional skills should be nurtured from birth through interactions, thoughts, feelings, and thoughts with others (Berkowitz & Grych, 2000; Huitt, 2004). In fact, the research shows that children with parents have poor well-being and can not make their own decisions. They might have a difficult time managing their anger and would rebel against authority figures when they are older (Kim et al., 2015; Li and Hein, 2019). And experimental research also indicates that kids benefit when parents abandon psychologically

controlling tactics and practice positive parenting instead. When Chinese parents make this switch, their children experience fewer academic problems (Guo et al., 2016).

V. Limitations and Future Research Directions

The present study also had three potential limitations. Firstly, convenience sampling from one Chinese southeastern public university was used in this study, and despite the comparatively large sample, it was not representative of whole Chinese college students, which might undermine the generalizability of the results. China is a colossal nation with diversified culture, and different regions' teaching emphasis and parenting styles might potentially influence by local policies, population, and economic development. For example, compared to eastern coastal providence, families in inland provinces would put more emphasis on exam-oriented education because these provinces have scarce quality education resources but large populations. Therefore, a future study that examines the conceptual framework with a random and larger sample from different regions would be able to substantiate the findings from this research. Secondly, this research mainly concentrates on parenting style as a principal indicator and resilience as a mediator of depression in Chinese college student's depression. However, the depressive symptom is also influenced by other factors, including stress, coping strategies, sleeping qualities, and SES(socio-economic status). These factors were not controlled and addressed in the current study. Therefore, future studies should examine other microenvironmental influences and how these interact with systemic factors.

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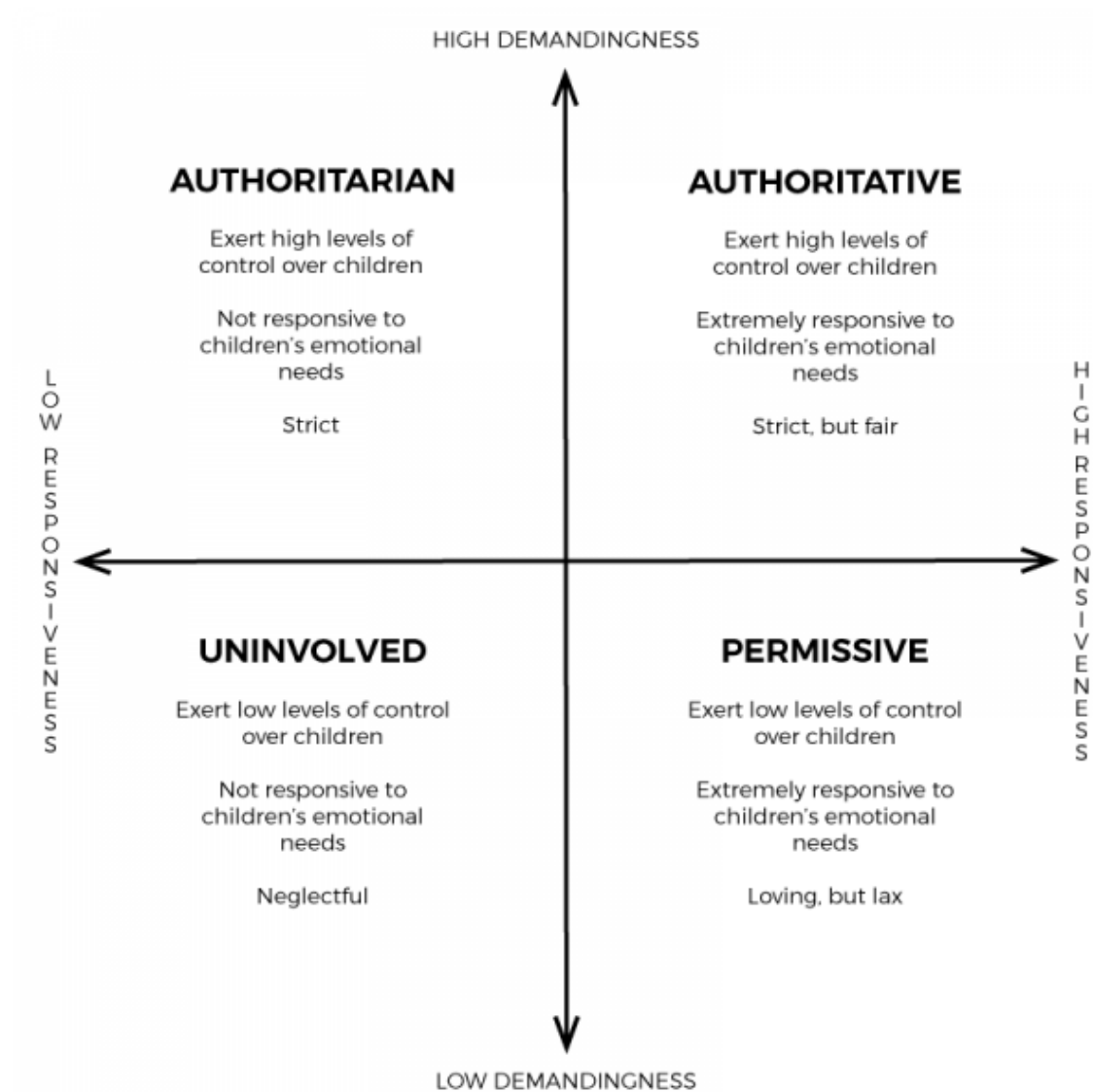
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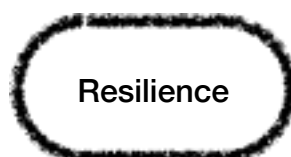
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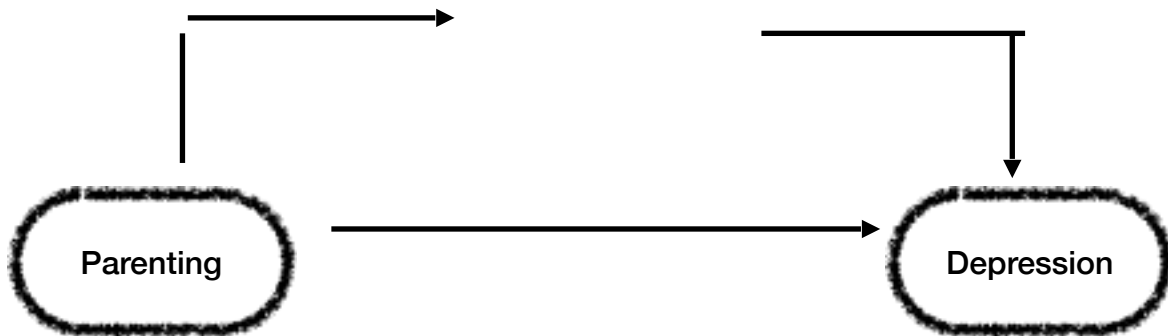
Appendix

I. Four categories parenting



II. The mediating and moderating effect account for the differences





III. Demographic Information

Item	Category	N	Percentage (%)
Gender	Male	889	36.4
	Female	1553	63.6
School year	Freshmen	1368	56.0
	Sophomore	696	28.5
	Junior	320	13.1
	Senior	58	2.4
How many siblings do you have in your family?	None	802	32.8
	1	1172	48.0
	2-4	439	18.0
	More than 4	29	1.2
What kind of area where you raised in?	Rural	1194	48.9
	Small town	1248	51.1
How is parent's martial relationship?	Very good	1904	78.0
	Divorced	160	6.6
	Not divorce, but quarrel frequently	303	12.4
	One of my parents has passed away	74	3.0
	Both of them have passed away	1	0.0

How is a living arrangement when you grow up?	Living with both parents	1972	80.7
	Living with a single parent	240	9.8
	Living with others	230	9.5

IV. Questionnaire Reliability Analysis

Scale	Items	Cronbach's Alpha
Involvement	4	0.936
Rejection	4	0.883
Structure	4	0.895
Chaos	4	0.841
Autonomy Support	4	0.950
Coercion	4	0.898
Personal ability	8	0.933
Believe in instinct	7	0.924
Actively accept change	5	0.914
Control	3	0.859
Religious influence	2	0.744
Depression	21	0.941

V. Questionnaire Validity Analysis

Scale	KMO	Bartlett's Test of Sphericity	df	Sig.
Parenting	0.935	49324.680	276	0.000
Resilience	0.981	60189.220	300	0.000
Depression	0.970	26207.805	210	0.000

